

IN THE CLAIMS

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26. (previously presented) A method of processing received data for delivery to a respective one of a plurality of processing devices, each of said plurality of processing devices having a corresponding address, said method comprising:

reading an address from a portion of said received data; and

decoding said portion of said received data to form decoded data when said portion of said received data is intended for a group of said processing devices that includes said respective one of said plurality of processing devices or when said portion of said received data is intended solely for said respective one of said plurality of processing devices;

said portion of said received data being determined to be intended for said group by comparing at least a segment of said read address to a corresponding segment of a stored address that is associated with said group, said segment of said read address and said corresponding segment of said stored address being identified by a stored mask sequence; and

said portion of said received data being determined to be intended solely for said respective one of said plurality of processing devices by comparing said read address to said corresponding address of said respective one of said plurality of processing devices.

27. (previously presented) The method of claim 26, wherein said decoding step includes decoding said portion of said received data when said portion of said received data is intended for all of said plurality of processing devices.

28. (previously presented) The method of claim 27, wherein said portion of said received data is intended for all of said plurality of processing devices when at least said segment of said read address is a predefined broadcast value.

29. (previously presented) The method of claim 26, wherein said segment of said read address is compared to said corresponding segment of said stored address by comparing, for each bit position identified by said stored mask sequence, a bit of said read address with its corresponding bit of said stored address.

30. (previously presented) The method of claim 26, wherein at least a segment of said corresponding address of each

processing device of said group is common to all of said group, and said mask sequence identifies said bit positions of said common segment.

31. (previously presented) The method of claim 26, wherein said corresponding address of each processing device of said group is associated with a stored further address, at least a segment of said stored further address being common to all of said group, and said mask sequence identifies said bit positions of said common segment.

32. (previously presented) The method of claim 26, wherein said segment of said read address is compared with said corresponding segment of said stored address only when a stored value associated with said stored address indicates that said stored address is in a valid state.

33. (previously presented) The method of claim 26, wherein said read address is compared with said corresponding address by converting said read address into a value having fewer bits than said read address and then comparing said converted value to a stored value associated with said corresponding address.

34. (previously presented) The method of claim 33, wherein said read address is converted using a Hash function, and said stored value is stored in a Hash table.

35. (currently amended) The method of claim 26, wherein said decoding step includes determining whether said portion of said received data is includes encrypted data, and when said portion of said received data is includes encrypted data, decrypting ~~said portion of said received encrypted data~~ using a decryption key that is either a private key or a public key.

36. (currently amended) The method of claim 35, wherein a determination of whether to decrypt ~~said portion of said received encrypted data~~ using either said private key or

said public key is carried out based on an indicator read from said portion of said received data.

37. (currently amended) The method of claim 35, wherein a determination of whether to decrypt ~~said portion of~~ said ~~received~~-encrypted data using either an even period decryption key or an odd period decryption key is carried out based on an indicator read from said portion of said received data.

38. (previously presented) The method of claim 26, wherein a table is searched to determine whether said read address indicates that said portion of said received data is intended for said group or is intended solely for said respective one of said plurality of processing devices, and when said portion of said received data is encrypted, said table is again searched to locate said stored address that coincides with said read address and then a decryption key corresponding to said stored address is retrieved.

39. (previously presented) The method of claim 38, wherein said decryption key is retrieved only when a stored value associated with said decryption key indicates that said decryption key is in a valid state.

40. (previously presented) An apparatus for processing received data for delivery to a respective one of a plurality of processing devices, each of said plurality of processing devices having a corresponding address, said apparatus comprising:

a decoder for reading an address from a portion of said received data, and for decoding said portion of said received data to form decoded data when said portion of said received data is intended for a group of said processing devices that includes said respective one of said plurality of processing devices or when said portion of said received data is

intended solely for said respective one of said plurality of processing devices;

said portion of said received data being determined to be intended for said group by comparing at least a segment of said read address to a corresponding segment of a stored address that is associated with said group, said segment of said read address and said corresponding segment of said stored address being identified by a stored mask sequence; and

said portion of said received data being determined to be intended solely for said respective one of said plurality of processing devices by comparing said read address to said corresponding address of said respective one of said plurality of processing devices.

41. (previously presented) The apparatus of claim 40, wherein said decoder decodes said portion of said received data when said portion of said received data is intended for all of said plurality of processing devices.

42. (previously presented) The apparatus of claim 41, wherein said portion of said received data is intended for all of said plurality of processing devices when at least said segment of said read address is a predefined broadcast value.

43. (previously presented) The apparatus of claim 40, wherein said decoder compares said segment of said read address to said corresponding segment of said stored address by comparing, for each bit position identified by said stored mask sequence, a bit of said read address with its corresponding bit of said stored address.

44. (previously presented) The apparatus of claim 40, wherein at least a segment of said corresponding address of each processing device of said group is common to all of said group, and said mask sequence identifies said bit positions of said common segment.

45. (previously presented) The apparatus of claim 40, wherein said corresponding address of each processing device of said group is associated with a stored further address, at least a segment of said stored further address being common to all of said group, and said mask sequence identifies said bit positions of said common segment.

46. (previously presented) The apparatus of claim 40, wherein said decoder compares said segment of said read address with said corresponding segment of said stored address only when a stored value associated with said stored address indicates that said stored address is in a valid state.

47. (previously presented) The apparatus of claim 40, wherein said decoder compares said read address with said corresponding address by converting said read address into a value having fewer bits than said read address and then compares said converted value to a stored value associated with said corresponding address.

48. (previously presented) The apparatus of claim 47, wherein said decoder converts said read address using a Hash function, and said stored value is stored in a Hash table.

49. (currently amended) The apparatus of claim 40, wherein said decoder determines whether said portion of said received data is ~~includes~~ encrypted data, and when said portion of said received data is ~~includes~~ encrypted data, decrypts ~~said portion of said received encrypted data~~ using a decryption key that is either a private key or a public key.

50. (currently amended) The apparatus of claim 49, wherein said decoder carries out a determination of whether to decrypt ~~said portion of said received encrypted data~~ using either said private key or said public key based on an indicator read from said portion of said received data.

51. (currently amended) The apparatus of claim 49, wherein said decoder carries out a determination of whether to

decrypt ~~said portion of said received~~ encrypted data using either an even period decryption key or an odd period decryption key based on an indicator read from said portion of said received data.

52. (previously presented) The apparatus of claim 40, wherein said decoder searches a table to determine whether said read address indicates that said portion of said received data is intended for said group or is intended solely for said respective one of said plurality of processing devices, and when said portion of said received data is encrypted, said decoder again searches said table to locate said stored address that coincides with said read address and then retrieves a decryption key corresponding to said stored address.

53. (previously presented) The apparatus of claim 52, wherein said decoder retrieves said decryption key only when a stored value associated with said decryption key indicates that said decryption key is in a valid state.

54. (previously presented) A readable medium recorded with instructions for processing received data for delivery to a respective one of a plurality of processing devices, each of said plurality of processing devices having a corresponding address, said instructions comprising:

reading an address from a portion of said received data; and

decoding said portion of said received data to form decoded data when said portion of said received data is intended for a group of said processing devices that includes said respective one of said plurality of processing devices or when said portion of said received data is intended solely for said respective one of said plurality of processing devices;

said portion of said received data being determined to be intended for said group by comparing at least a segment of said read address to a corresponding segment of a stored address

that is associated with said group, said segment of said read address and said corresponding segment of said stored address being identified by a stored mask sequence; and

said portion of said received data being determined to be intended solely for said respective one of said plurality of processing devices by comparing said read address to said corresponding address of said respective one of said plurality of processing devices.

55. (previously presented) A method of delivering data to a respective one of a plurality of processing devices, each of said plurality of processing devices having a corresponding address, said method comprising:

receiving transmitted data;

reading an address from a portion of said received data;

decoding said portion of said received data to form decoded data when said portion of said received data is intended for a group of said processing devices that includes said respective one of said plurality of processing devices or when said portion of said received data is intended solely for said respective one of said plurality of processing devices; and

delivering said decoded data to said respective one of said plurality of processing devices;

said portion of said received data being determined to be intended for said group by comparing at least a segment of said read address to a corresponding segment of a stored address that is associated with said group, said segment of said read address and said corresponding segment of said stored address being identified by a stored mask sequence; and

said portion of said received data being determined to be intended solely for said respective one of said plurality of processing devices by comparing said read address to said

corresponding address of said respective one of said plurality of processing devices.

56. (previously presented) An apparatus for delivering data to a respective one of a plurality of processing devices, each of said plurality of processing devices having a corresponding address, said apparatus comprising:

a receiver for receiving transmitted data;

a decoder for reading an address from a portion of said received data, decoding said portion of said received data to form decoded data when said portion of said received data is intended for a group of said processing devices that includes said respective one of said plurality of processing devices or when said portion of said received data is intended solely for said respective one of said plurality of processing devices, and delivering said decoded data to said respective one of said plurality of processing devices;

said portion of said received data being determined to be intended for said group by comparing at least a segment of said read address to a corresponding segment of a stored address that is associated with said group, said segment of said read address and said corresponding segment of said stored address being identified by a stored mask sequence; and

said portion of said received data being determined to be intended solely for said respective one of said plurality of processing devices by comparing said read address to said corresponding address of said respective one of said plurality of processing devices.

57. (previously presented) A readable medium recorded with instructions for delivering data to a respective one of a plurality of processing devices, each of said plurality of processing devices having a corresponding address, said instructions comprising:

receiving transmitted data;

reading an address from a portion of said received data;

decoding said portion of said received data to form decoded data when said portion of said received data is intended for a group of said processing devices that includes said respective one of said plurality of processing devices or when said portion of said received data is intended solely for said respective one of said plurality of processing devices; and

delivering said decoded data to said respective one of said plurality of processing devices;

said portion of said received data being determined to be intended for said group by comparing at least a segment of said read address to a corresponding segment of a stored address that is associated with said group, said segment of said read address and said corresponding segment of said stored address being identified by a stored mask sequence; and

said portion of said received data being determined to be intended solely for said respective one of said plurality of processing devices by comparing said read address to said corresponding address of said respective one of said plurality of processing devices.

58. (currently amended) A method of processing data for transmission to at least one of a plurality of processing devices, each of said plurality of processing devices having a corresponding address, said method comprising:

encoding at least a portion of said data; and

attaching a control address to said portion of said data, said control address being associated with said corresponding address of a respective one of said plurality of processing devices when said portion of said data is intended solely for said respective one of said plurality of processing devices, at least a segment of said control address being associated with a group of said processing devices and being

identifiable by a mask sequence associated with said group of said processing devices when said portion of said data is intended for each of said processing devices in said group.

59. (previously presented) The method of claim 58, wherein said segment of said control address is a predefined broadcast value when said portion of said data is intended for all of said plurality of processing devices.

60. (previously presented) The method of claim 58, wherein at least a segment of said corresponding address of each processing device of said group is common to all of said processing devices in said group, and when said portion of the data is intended for each of said processing devices in said group, said segment of said control address comprises said segment of said corresponding address.

61. (previously presented) The method of claim 58, wherein said corresponding address of each of said processing devices in said group is associated with a further address, at least a segment of said further address being common to all of said processing devices in said group, and when said portion of said data is intended for each of said processing devices in said group, said segment of said control address comprises said segment of said further address.

62. (previously presented) The method of claim 58, wherein, when said portion of said data is intended solely for said respective one of said plurality of processing devices, said control address is convertible into a value having fewer bits than said control address, said converted value being associated with said corresponding address.

63. (currently amended) The method of claim 58, wherein said encoding step includes attaching a flag indicating whether said portion of said data is includes encrypted data.

64. (currently amended) The method of claim 58, wherein said encoding step includes encrypting part of said

portion of said data using an encryption key associated with said control address.

65. (previously presented) The method of claim 64, wherein, when said portion of said data is intended solely for said respective one of said plurality of processing devices, said encryption key corresponds to said respective one of said plurality of processing devices.

66. (previously presented) The method of claim 64, wherein, when said portion of said data is intended for said respective one of said plurality of processing devices, said encryption key corresponds to said group.

67. (previously presented) The method of claim 64, wherein said encoding step includes determining whether said encryption key is to be changed from an odd period encryption key to an even period encryption key or from an even period encryption key to an odd period encryption key.

68. (currently amended) The method of claim 64, wherein said encoding step includes attaching a flag indicating whether said part of said portion of said data is encrypted using an even period encryption key or is encrypted using an odd period encryption key.

69. (currently amended) An apparatus for processing data for transmission to at least one of a plurality of processing devices, each of said plurality of processing devices having a corresponding address, said apparatus comprising:

an encoder for encoding at least a portion of said data and for attaching a control address to said portion of said data, said control address being associated with said corresponding address of a respective one of said plurality of processing devices when said portion of said data is intended solely for said respective one of said plurality of processing devices, at least a segment of said control address being associated with a group of said processing devices and being

identifiable by a mask sequence associated with said group of said processing devices when said portion of said data is intended for each of said processing devices in said group.

70. (previously presented) The apparatus of claim 69, wherein said segment of said control address is a predefined broadcast value when said portion of said data is intended for all of said plurality of processing devices.

71. (previously presented) The apparatus of claim 69, wherein at least a segment of said corresponding address of each processing device of said group is common to all of said processing devices in said group, and when said portion of said data is intended for each of said processing devices in said group, said segment of said control address comprises said segment of said corresponding address.

72. (previously presented) The apparatus of claim 69, wherein said corresponding address of each of said processing devices in said group is associated with a further address, at least a segment of said further address being common to all of said processing devices in said group, and when said portion of the data is intended for each of said processing devices in said group, said segment of said control address comprises said segment of said further address.

73. (previously presented) The apparatus of claim 69, wherein, when said portion of said data is intended solely for said respective one of said plurality of processing devices, said control address is convertible into a value having fewer bits than said control address, said converted value being associated with said corresponding address.

74. (currently amended) The apparatus of claim 69, wherein said encoder attaches a flag indicating whether said portion of said data ~~is~~ includes encrypted data.

75. (currently amended) The apparatus of claim 69, wherein said encoder encrypts part of said portion of said data using an encryption key associated with said control address.

76. (previously presented) The apparatus of claim 75, wherein, when said portion of said data is intended solely for said respective one of said plurality of processing devices, said encryption key corresponds to said respective one of said plurality of processing devices.

77. (previously presented) The apparatus of claim 75, wherein, when said portion of said data is intended for said respective one of said plurality of processing devices, said encryption key corresponds to said group.

78. (previously presented) The apparatus of claim 75, wherein said encoder determines whether said encryption key is to be changed from an odd period encryption key to an even period encryption key or from an even period encryption key to an odd period encryption key.

79. (currently amended) The apparatus of claim 75, wherein said encoder attaches a flag indicating whether said part of said portion of said data is encrypted using an even period encryption key or is encrypted using an odd period encryption key.

80. (currently amended) A readable medium recorded with instructions for processing data for transmission to at least one of a plurality of processing devices, each of said plurality of processing devices having a corresponding address, said instructions comprising:

encoding at least a portion of said data; and

attaching a control address to said portion of said data, said control address being associated with said corresponding address of a respective one of said plurality of processing devices when said portion of said data is intended solely for said respective one of said plurality of processing

devices, at least a segment of said control address being associated with a group of said processing devices and being identifiable by a mask sequence associated with said group of said processing devices when said portion of said data is intended for each of said processing devices in said group.

81. (currently amended) A method of transmitting data to at least one of a plurality of processing devices, each of said plurality of processing devices having a corresponding address, said method comprising:

encoding at least a portion of said data;

attaching a control address to said portion of said data, said control address being associated with said corresponding address of a respective one of said plurality of processing devices when said portion of said data is intended solely for said respective one of said plurality of processing devices, at least a segment of said control address being associated with a group of said processing devices and being identifiable by a mask sequence associated with said group of said processing devices when said portion of said data is intended for each of said processing devices in said group; and

transmitting said portion of said data.

82. (currently amended) An apparatus for transmitting data to at least one of a plurality of processing devices, each of said plurality of processing devices having a corresponding address, said apparatus comprising:

an encoder for encoding at least a portion of said data and for attaching a control address to said portion of said data, said control address being associated with said corresponding address of a respective one of said plurality of processing devices when said portion of said data is intended solely for said respective one of said plurality of processing devices, at least a segment of said control address being associated with a group of said processing devices and being

identifiable by a mask sequence associated with said group of said processing devices when said portion of said data is intended for each of said processing devices in said group; and
a transmitter for transmitting said portion of said data.

83. (currently amended) A readable medium recorded with instructions for transmitting data to at least one of a plurality of processing devices, each of said plurality of processing devices having a corresponding address, said instructions comprising:

encoding at least a portion of said data;

attaching a control address to said portion of said data, said control address being associated with said corresponding address of a respective one of said plurality of processing devices when said portion of said data is intended solely for said respective one of said plurality of processing devices, at least a segment of said control address being associated with a group of said processing devices and being identifiable by a mask sequence associated with said group of said processing devices when said portion of said data is intended for each of said processing devices in said group; and
transmitting said portion of the data.

84. (previously presented) A method of sending data to at least one of a plurality of processing devices, each of said plurality of processing devices having a corresponding address, said method comprising:

encoding at least a portion of said data;

attaching a control address to said portion of said data, said control address being associated with said corresponding address of a respective one of said plurality of processing devices when said portion of said data is intended solely for said respective one of said plurality of processing devices, at least a segment of said control address being

associated with a group of said processing devices when said portion of said data is intended for each of said processing devices in said group;

transmitting said portion of said data;

receiving said portion of said data;

reading said control address from said portion of said data;

decoding said portion of the data to form decoded data when said portion of said data is intended for a group of said processing devices that includes said respective one of said plurality of processing devices or when said portion of said data is intended solely for said respective one of said plurality of processing devices; and

delivering said decoded data to said respective one of said plurality of processing devices;

said portion of said data being determined to be intended for said group by comparing at least a segment of said control address to a corresponding segment of a stored address that is associated with said group, said segment of said control address and said corresponding segment of said stored address being identified by a stored mask sequence; and

said portion of said data being determined to be intended solely for said respective one of said plurality of processing devices by comparing said control address to said corresponding address of said respective one of said plurality of processing devices.

85. (previously presented) A system for sending data to at least one of a plurality of processing devices, each of said plurality of processing devices having a corresponding address, said system comprising:

an apparatus for transmitting data, said apparatus comprising:

an encoder for encoding at least a portion of said data and for attaching a control address to said portion of said data, said control address being associated with said corresponding address of a respective one of said plurality of processing devices when said portion of said data is intended solely for said respective one of said plurality of processing devices, at least a segment of said control address being associated with a group of said processing devices when said portion of said data is intended for each of said processing devices in said group; and

a transmitter for transmitting said portion of the data; and

an apparatus for receiving data, said apparatus comprising:

a receiver for receiving said portion of said data; and

a decoder for reading said control address from said portion of said data, decoding said portion of the data to form decoded data when said portion of the data is intended for a group of said processing devices that includes said respective one of said plurality of processing devices or when said portion of said data is intended solely for said respective one of said plurality of processing devices, and delivering said decoded data to said respective one of said plurality of processing devices;

said portion of said data being determined to be intended for said group by comparing at least a segment of said control address to a corresponding segment of a stored address that is associated with said group, said segment of said control address and said corresponding segment of said stored address being identified by a stored mask sequence; and

said portion of said data being determined to be intended solely for said respective one of said plurality of

processing devices by comparing said control address to said corresponding address of said respective one of said plurality of processing devices.

86. (previously presented) At least one readable medium recorded with instructions for sending data to at least one of a plurality of processing devices, each of said plurality of processing devices having a corresponding address, said instructions comprising:

encoding at least a portion of said data;

attaching a control address to said portion of said data, said control address being associated with said corresponding address of a respective one of said plurality of processing devices when said portion of said data is intended solely for said respective one of said plurality of processing devices, at least a segment of said control address being associated with a group of said processing devices when said portion of said data is intended for each of said processing devices in said group;

transmitting said portion of said data;

receiving said portion of said data;

reading said control address from said portion of said data;

decoding said portion of said data to form decoded data when said portion of said data is intended for a group of said processing devices that includes said respective one of said plurality of processing devices or when said portion of said data is intended solely for said respective one of said plurality of processing devices; and

delivering said decoded data to said respective one of said plurality of processing devices;

said portion of said data being determined to be intended for said group by comparing at least a segment of said control address to a corresponding segment of a stored address

that is associated with said group, said segment of said control address and said corresponding segment of said stored address being identified by a stored mask sequence; and

said portion of said data being determined to be intended solely for said respective one of said plurality of processing devices by comparing said control address to said corresponding address of said respective one of said plurality of processing devices.